

On your answer sheet, write in or circle the correct letter for each question.

### 7Ka

- 1 What can forces do?
  - A make things start or stop moving
  - B change the shape of things
  - C make moving things change direction
  - D all of the above
- 2 Which answer shows three non-contact forces?
  - A magnetism, gravity, friction
  - B gravity, friction, upthrust
  - C gravity, static electricity, magnetism
  - D upthrust, static electricity, friction
- 3 What is used to measure forces?
  - A a force meter with a spring inside
  - B a force meter with string inside
  - C a ruler
  - D a clamp and stand
- 4 Which is true?
  - A Your weight would be the same on the Earth and on the Moon.
  - B Your mass would be the same on the Earth and on the Moon.
  - C Your weight would be more on the Moon than on the Earth.
  - D Your mass would be less on the Moon than on the Earth.

### 7Kb

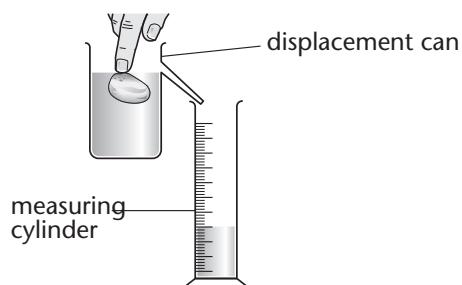
- 1 Which of the following sentences about friction is *not* correct?
  - A Friction can make an object get hotter.
  - B Friction wears car tyres away.
  - C Friction slows down a ball rolling in grass.
  - D Friction can speed up a falling object.

- 2 Which of these would produce the most friction when they rub together?
  - A a rough surface and a smooth one
  - B two smooth surfaces
  - C two rough surfaces
  - D two smooth surfaces with oil between them
- 3 Which example shows unhelpful friction?
  - A friction between a tyre and the road
  - B friction in the wheel axles of a bicycle
  - C friction between paper and the point of a pencil
  - D friction between your shoes and the floor
- 4 Which of the following is *not* an example of a lubricant?
  - A grease for bicycle chains
  - B rubber on car tyres
  - C water on swimming pool tiles
  - D oil in a car engine

### 7Kc

- 1 A boat will float because:
  - A gravity does not work over water.
  - B it is built out of waterproof materials.
  - C upthrust pushes against its weight.
  - D its weight is greater than the upthrust.
- 2 Density is:
  - A the weight of a fixed mass of something.
  - B the volume of a fixed weight of something.
  - C the weight of a fixed volume of something.
  - D the mass of a fixed volume of something.

- 3** You can find the volume of the object in the can by:
- A** measuring the object and multiplying the numbers.
  - B** measuring the volume of water it displaces.
  - C** weighing the object.
  - D** using a thermometer.



- 4** The density of water is  $1 \text{ g/cm}^3$ . Which of these objects will float in water?
- A** density =  $2 \text{ g/cm}^3$
  - B** weight =  $2 \text{ N}$
  - C** density =  $0.5 \text{ g/cm}^3$
  - D** mass =  $1 \text{ g}$

### 7Kd

- 1** Which pair of forces are balanced?
- A**
  - B**
  - C**
  - D**
- 2** Which of these things will *not* happen if there are unbalanced forces on an object?
- A** it will start to move
  - B** it will slow down
  - C** it will continue to move at the same speed
  - D** it will change direction
- 3** An elastic material:
- A** does not stretch.
  - B** stretches and stays in its new shape.
  - C** stretches and then goes back to its original shape.
  - D** cannot be squashed.

- 4** What do most force meters have inside them?
- A** a light bulb
  - B** a spring
  - C** wires
  - D** a battery

### 7Ke

- 1** The speed of a car is a measure of how \_\_\_\_\_ it is travelling. Which is the missing word?
- A** fast
  - B** far
  - C** long
  - D** high
- 2** If a car goes faster:
- A** the thinking distance does not change.
  - B** its stopping distance increases.
  - C** its braking distance does not change.
  - D** its braking distance gets less.
- 3** Which of these factors will help a car to stop quickly?
- A** a tired driver
  - B** going uphill
  - C** worn tyres
  - D** a wet road

- 4** This graph shows the distance moved by someone catching a bus. Which part of the graph shows the person waiting at the bus stop?

- A** a to b
- B** b to c
- C** c to d
- D** d to e

